DOCUMENT RESUME

ED 393 918 TM 024 930

AUTHOR Curry, Janice; And Others
TITLE Reading Recovery in AISD. Publication No. 94.06.
INSTITUTION Austin Independent School District, TX. Dept. of Performance Audit and Evaluation.
PUB DATE May 95
NOTE 23p.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Achievement Gains; *Early Intervention; Elementary School Students; *Grade 1; Primary Education; *Program Effectiveness; Program Evaluation; Reading Difficulties; Reading Instruction; Reading Programs; Spanish; *Tutorial Programs; Tutoring; *Tutors
IDENTIFIERS *Austin Independent School District TX; *Reading Recovery Projects

ABSTRACT

Reading Recovery is an early intervention program designed to reach first-grade students who are having the most trouble learning to read. Students meet daily with specially trained teachers for an average of 12 to 20 weeks. Reading Recovery began in the Austin (Texas) Independent School District in 1992-93. In 1993-94, Reading Recovery served 268 students at 20 schools in its English version, and, for the first time, the program served 38 students through its Spanish version. In 1993-94, 83 students completed the program successfully, representing 31% of all Reading Recovery students. The promotion rate for these discontinued students was higher, at 94.5%, than that of comparisons who did not participate in Reading Recovery (82%). In fact, the promotion rate for all program students (84%) was higher than that of comparisons. Discontinued students outscored comparisons on the Iowa Tests of Basic Skills, and Spanish-speaking program students also outscored their comparison group. When 1992-93 Reading Recovery students were ranked by their second grade teachers, discontinued students ranked, on average, in the 53rd percentile, and program students who were not discontinued ranked in the 25th percentile. (Contains seven tables and nine references.) (SLD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 393 918

READING RECOVERY IN AISD

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

W. L. HOOPER

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Austin Independent School District
Department of Performance Audit and Evaluation

Publication No. 94.06
May 1995

TM024930

BEST COPY AVAILABLE

READING RECOVERY IN AISD
Executive Summary

Austin Independent School District
Department of Performance Audit and Evaluation
Authors: Janice Curry, Julia Griffith, Holly Williams

Program Description

The Reading Recovery program is an early intervention program designed to reach first grade students (the lowest 15-20% in reading skills) who are having the most difficulty learning to read. Students meet daily in one-on-one sessions with specially trained teachers for an average of 12-20 weeks (60-100 sessions).

Reading Recovery began in the Austin Independent School District (AISD) in 1992-93 with 10 teachers and two teacher leaders in training. Sixty-two students were served during the first year of Reading Recovery.

Full implementation of the Reading Recovery program in AISD began in 1993-94 when the two trained teacher leaders began working with 39 teachers. Two additional teacher leaders were trained at Texas Woman's University during the 1993-94 academic year. Reading Recovery served 268 grade 1 students at 20 schools during the 1993-94 school year.

The Spanish version of Reading Recovery, *Descubriendo la Lectura*, was introduced at six schools during 1993-94. Thirty-eight Spanish-speaking students were served by six teachers who were in training for *Descubriendo la Lectura*.

In this evaluation of the AISD Reading Recovery program, ***Reading Recovery students*** are defined as all students who received any Reading Recovery instruction. The ***Reading Recovery students*** are divided into the following subgroups for evaluation purposes:

- ***Program students*** are students who have successfully completed (*discontinued*) the program and/or have received 60 or more sessions.
- ***Discontinued students*** are any students who have successfully completed the Reading Recovery program.
- ***Program students-not discontinued*** are students who have received 60 or more sessions, but have not successfully completed (*discontinued*) the program.
- ***Other students*** are those who received less than 60 sessions and exited before successfully completing the program.

Major Findings

1. In 1993-94, 83 ***Reading Recovery students*** successfully completed the program (***discontinued***). This number represents 31% of all ***Reading Recovery students*** and 54% of all ***program students***. (Pages 5-6)

2. The promotion rate for ***discontinued students*** (94.5%) was higher than that of the control group (82%) in 1993-94. The promotion rate of all ***program students*** (84%) was slightly higher than that of the control group (82%). (Pages 7-8)

3. Gains are evident for the 1992-93 and 1993-94 Reading Recovery ***discontinued students*** from the fall pretest, the Metropolitan Readiness Test (MRT), to the spring posttest, the Iowa Test of Basic Skills (ITBS). (Page 9)

4. In 1993-94, ***discontinued students*** began the program with lower MRT scores than the control group, but outscored the control group on the ITBS. (Page 8)

5. The Reading Recovery students who scored above the 30th percentile on the MRT showed losses from pretest (MRT) to posttest (ITBS) while others who scored below the 30th percentile showed gains. (Pages 9-10)

6. Spanish-speaking students who were instructed with the *Descubriendo la Lectura* showed substantial gains from pretest (Spanish MRT) to posttest (*La Prueba*). (Pages 10-11)

7. The 1992-93 Reading Recovery students were ranked in reading by their second grade classroom teacher in 1993-94. The ***discontinued*** students, on the average, ranked in the 53rd percentile, while ***program students-not discontinued*** ranked in the 25th percentile. (Page 11)

8. None of the 1992-93 ***Reading Recovery students*** were subsequently served by other supplemental Chapter 1 reading programs in 1993-94. (Pages 11-12)

Budget Implications

Mandate: External funding agency
Chapter 1 and Chapter 2

Total Funding Amount:

1993-94	$ 973,607
1994-95	$1,233,032

The cost per student for 1993-94, including startup and training cost, was $3,663. (Pages 11-12)

Recommendations

1. A comprehensive process for selecting students who will be served by Reading Recovery will help the program serve students in the most need. Standardized tests used in addition to the Reading Recovery assessment will help validate and standardize eligibility and exit criteria.

2. The AISD Reading Recovery program should strive to increase the number of students who successfully complete (*discontinue*) the program to improve cost-effectiveness.

3. The implementation rate for the AISD Reading Recovery program should increase to serve more of the students who are lowest in literacy.

4. Increased collaboration of Reading Recovery teachers and teacher leaders with classroom teachers, special education teachers, and the principal will contribute to improved student outcomes.

5. Program effectiveness should improve as the number of experienced teachers increases. The continuation of experienced Reading Recovery teachers is important to the success of the program.

6. The effects of the Reading Recovery program in AISD should continue to be investigated with further cooperative evaluation between the local Reading Recovery staff and district evaluation personnel.

TEACHER LEADERS' RESPONSE TO THE READING RECOVERY REPORT

Response to Program Description

Response to Paragraph 1

Official Reading Recovery documentation shows a total of 49 students served in the 1992-93 school year. The discrepancy may be the result of confusion with reporting on ROSS forms. Reading Recovery counts ***only those students who have had at least one (1) lesson after ten (10) days of observation***. ROSS forms report every day of service. The Reading Recovery office plays no role in ROSS form data collection.

Response to Paragraph 3

Again, a discrepancy in the number of Reading Recovery students. Official Reading Recovery documentation shows 256 students served in the 1993-94 school year. ROSS forms show that 268 students were served. See explanation above.

Response to Paragraph 5

Other students - This category includes students served, if even for just one (1) day. This is not a category that is used for comparison by the Reading Recovery program.

Response to Major Findings

Response to Major Finding 1

1. The Reading Recovery figure for Discontinued Students for the 1993-94 school year is 87. The Discontinuing rate is 57%. These figures were calculated by the Ohio State University, based upon data entered on individual student scantron sheets. These sheets are filled out by a student's Reading Recovery teacher, checked by a teacher leader and submitted to Ohio State University for review/calculation.

   Caution: If looking at categories called Reading Recovery Students and/or Other Students, you may possibly be misled. These students may not have had even one (1) actual Reading Recovery lesson. The Reading Recovery program does not utilize such categories/definitions. It does, however, utilize the following categories: Program Students, Discontinued Students, and Program Students-Not Discontinued. The categories of Reading Recovery Students and Other Students are a product of AISD program evaluation.

Response to Major Finding 5

5. The pretest was the MRT. The posttest was the ITBS. We believe that the "apparent" losses can be explained by the differences between the two tests. There is no reason to believe that daily reading and writing, in a supportive tutorial environment, should handicap a student in any way.

Response to Major Finding 9

9. Please note that the per student cost has been calculated from the total amount spent. Office start-up costs, training costs for two Teacher Leaders and tuition/training costs for teachers-in-training are included in the total expenditure for the 1993-94 school year. The actual cost per student should decrease significantly in subsequent years, as such expenditures are not repetitive.

Response to Recommendations

Response to Recommendation 1

1. A process for selecting Reading Recovery students is controlled by national guidelines, which were developed at Ohio State University and approved by Dr. Marie Clay (developer of the Reading Recovery program). The six assessments used are valid and reliable.

   A core belief of Reading Recovery is that systematic observation of individuals will locate the students with the greatest need. While some standardized tests may suggest that a student is functioning at a higher level than some others, it is systematic observation which will reveal the specific literacy repertoires of each child and which will allow each child to be compared to others. While no system is error-free, this system allows for reduction of identification error. Standardized tests are useful for comparing groups; not individuals.

   We do believe that the classroom teacher's alternate ranking of his/her students from highest to lowest in literacy, which is used to identify the bottom third of the cohort, can be improved by specific suggestions of what types of things to observe.

   Exit criteria must be judged by an impartial Reading Recovery teacher (not the child's Reading Recovery teacher), who is trained to observe the child at work on authentic reading and writing tasks. The judgment about whether a self-extending system is in place cannot be made from any group-administered test score.

Open Letter

Through discussions, we, the staff of Department of Performance Audit and Evaluation and the Reading Recovery Teacher Leaders, have decided to coordinate efforts in order to do a pilot study of the Reading Recovery Program in the 1995-1996 school year. This pilot study will enable us to try out the planned research methodology in preparation for a larger scale study in the 1996-1997 school year. The Reading Recovery Program should be fully developed in Austin ISD by the 1996-1997 school, and therefore, the variables investigated in the evaluation such as cost and effectiveness should be more stable. Thus, an evaluation in the 1996-1997 school year should give a clear and stable picture of the Reading Recovery Program.

TABLE OF CONTENTS

Executive Summary i

Teacher Leaders' Response to the Reading Recovery Report ii

Open Letter iii

List of Tables vi

Introduction and Literature Review 1

Program Overview 2

Evaluation Overview 3

Findings and Implications 5

Summary 14

Recommendations 14

Bibliography 15

LIST OF TABLES

Table		Page
1	Demographics of Reading Recovery Students and the Control Group	5
2	Number and Percent of Reading Recovery Program and Discontinued Students in 1993-94	5
3	Promotion and Retention of Reading Recovery Students and the Control Group, 1993-94	7
4	1993-94 MRT and ITBS Median Percentiles and NCEs For Chapter 1 Reading Recovery Students and the Control Group	8
5	1992-93 and 1993-94 MRT and ITBS Reading Comprehension Median Percentile All Students Served by Reading Recovery	9
6	MRT and ITBS for All Program and Discontinued Students and Chapter 1 Comparison	10
7	MRT and *La Prueba* for Spanish *Descubriendo la Lectura*, 1993-94	11

Introduction & Literature Review

The daily newspaper, a recipe, a road sign; for most of us reading is something we do everyday without thinking much about it. It would be difficult to remember when and how we first learned to read. For some students, reading does not come as easily. Reading deficits in first grade can lead to a lifetime of school difficulties and feelings of inadequacy. In the Austin Independent School District (AISD) alone, 44.6 % of all first graders scored below the 45 percentile (the level at which an AISD student is deemed in need of a reading improvement program) on the reading section of the Norm-referenced Assessment Program of Texas (NAPT). The percentage holds at 44% for AISD elementary students, grades three through six. Figures like these suggest that there is a critical need for a reading program in the early grades.

Reading Recovery, developed in New Zealand by Marie Clay, is a pull-out reading program designed to target the poorest readers in first grade classrooms. Low achievers in reading exhibit fewer and less efficient interacting strategies involved in reading acquisition (Clay, 1988). To help them progress to an average reading ability for their grade level, students receive 30 minute individual lessons taught daily by trained teachers and teachers-in-training. Teachers use special techniques to build on the child's strengths as a learner and to develop strategies that research shows good readers use (Ohio State University, 1989).

Evaluation data have been collected on the Reading Recovery program since its inception in the Columbus City Schools in 1984 (Ohio State University, 1989). Both positive and negative outcomes have been reported. An evaluation conducted by the Michigan Department of Evaluation Services examined the effectiveness of the Reading Recovery program in the Saginaw school district using a group of Reading Recovery first grade students and a comparison group of non-Reading Recovery first graders. They found that the Reading Recovery students and the comparison group had similar mean scores on the six subtests of the Observation Survey (used in the Reading Recovery program) in December. However, by May the students who were successfully discontinued from the Reading Recovery program outscored students in the comparison group on all six subtests. Other studies produced similar results (Pinnell, Lyons, DeFord, Bryk, Seltzer, 1994). Reading Recovery was compared to other one-on-one reading programs to determine the effects of individual tutoring on reading skills. Reading Recovery was the only group to show a significant mean treatment effect on all four measures used (Dictation 2, text reading level, Gates-MacGinitie, and Woodcock) (Pinnell et al., 1994). One-on-one instruction appears to have a positive impact on student reading skills, although research suggests that thorough teacher training is equally important to student success (Pinnell et al., 1994).

Other findings have been less positive. A study of the Chicago Public Schools Reading Recovery program (Curtin, 1993) found that students who received Reading Recovery lessons did not obtain significantly greater reading achievement gains than students who received classroom instruction only. Fincher (1989) reported similar findings. Fincher found that Reading Recovery students scored lower than regular Chapter 1 students and that Reading Recovery students, compared to Chapter 1 students, continued to need help beyond the Reading Recovery intervention.

Because Reading Recovery costs about four times the amount of Chapter 1, the question of cost-effectiveness must be raised. If participation in Reading Recovery, although expensive, eliminates the need for future compensatory education (and the cost of such education), then an argument for the long-term cost benefits of Reading Recovery could be made. However, an evaluation of the Reading Recovery program in the Columbus Public Schools by their Department of Program Evaluation found that 40.4% of

Reading Recovery students from their 1989-1990 group and 33.3% from their 1990-1991 group required additional compensatory education (Pollock, 1993). A similar evaluation of the Reading Recovery program in the Wake County Public School System (Donley, Baenen, Hundley, 1993) found that Reading Recovery students were less likely to receive special education services than non-program comparison students, but only by a difference of six percent. They further concluded that although Reading Recovery could not impact all the reasons that students were referred to special education services, a greater impact should have been observed.

Overall, data on the Reading Recovery program suggest some benefits. However, whether this program is the most cost-effective intervention for the lowest in literacy is uncertain. Due to the high cost of the Reading Recovery program and the presence of both positive and negative evaluation outcomes, continuing evaluation must be conducted to determine the initial, and more importantly, long-term influence of Reading Recovery on our lowest in literacy.

PROGRAM OVERVIEW

Reading Recovery is an early intervention program designed to reach those first-grade students (the lowest 20% in reading skills) who are having the most difficulty learning to read. The program is based on the premise that early, high-quality help has the greatest potential for lasting impact and for reducing the need for continued compensatory education.

Students meet daily in one-on-one sessions with specially trained teachers for an average of 12-20 weeks. The goal of the program is for children to develop effective reading and writing strategies in order to work within the average reading level in the regular classroom.

Initial training for teachers takes one academic year, but Reading Recovery teachers and teacher leaders begin to work with children immediately. Reading Recovery teacher leaders spend one year at a college campus training in the program before training other teachers.

Training at both the teacher leader level and the teacher level includes work with children behind a one-way mirror. This critical component provides opportunities for class members to observe and describe student and teacher behaviors articulately and to establish problem-solving strategies for decision making. The research-based training focuses on analyzing children's reading behaviors and relating those behaviors to more general theories of literacy learning that teachers use to guide their work with the children.

The Reading Recovery program began in the Austin Independent School District during the 1992-93 school year. While two teacher leaders were being trained at Texas Woman's University (TWU) in Denton, Texas, 10 AISD teachers were trained in Reading Recovery by the Round Rock ISD teacher leader. Sixty-two grade 1 students were served at 10 Chapter 1 schools (Andrews, Brooke, Govalle, Harris, Linder, Metz, Ortega, Widen, Wooldridge, and Zavala) during 1992-93.

Full implementation of the Reading Recovery program in AISD began in 1993-94 when the two trained teacher leaders began working with 39 teachers (8 experienced in Reading Recovery and 31 in training). Two more teacher leaders trained at TWU during the 1993-94 academic year. Reading Recovery served 268 grade 1 students at 20 schools (18 Chapter 1 schools and two Chapter 2 schools) during the second year of the program. The 20 schools offering Reading Recovery in 1993-94 were Allan, Allison, Andrews, Blanton, Brooke, Govalle, Harris, Jordan, Linder, Oak Hill, Ortega, Reilly, Ridgetop, Sanchez, Travis Heights, Walnut Creek, Widen, Wooldridge, Wooten, and Zavala.

A Spanish version of Reading Recovery, *Descubriendo la Lectura*, was introduced at six schools (Allison, Andrews, Brooke, Harris, Linder, and Ridgetop) during 1993-94. Thirty-eight Spanish-speaking students were served by six teachers who were in training for *Descubriendo la Lectura*.

EVALUATION OVERVIEW

To understand the Reading Recovery program, it is important to be familiar with the following definitions of the terms used by the Reading Recovery program to describe students served by the program:

> ***Reading Recovery children*** are selected from among the lowest 20 percent of their first-grade classrooms in reading comprehension based on the results of the Observation Survey and teacher judgment.
>
> ***Discontinued children*** are those students served by Reading Recovery who successfully returned to average settings within the regular classroom.
>
> ***Program children*** are those served by Reading Recovery who were ***discontinued***, or had the opportunity for at least 60 lessons, but did not discontinue.

For the purpose of this study, ***Reading Recovery students*** are all students who received any Reading Recovery instruction. The ***Reading Recovery students*** were divided into the following subgroups for evaluation purposes:

> ***Program students*** are students who have successfully completed (*discontinued*) the program and/or have received 60 or more sessions. This includes both *discontinued* and *program students-not discontinued.*
>
> - ***Discontinued students*** are any students who have successfully completed the Reading Recovery program.
>
> - ***Program students-not discontinued*** are students who have received 60 or more sessions, but have not successfully completed (*discontinued*) the program.
>
> ***Other students*** are those who received less than 60 sessions and exited before successfully completing the program.

Data used for the evaluation of Reading Recovery were collected on the Record of Student Services (ROSS) form at the end of each six weeks. Chapter 1 teachers used the ROSS form to code the names of students served, student identification numbers, the entry and exit dates, and the number of sessions served.

The Austin ISD Reading Recovery teacher leaders kept records that were sent to the main office in Ohio at the end of the year. These records included the child's name; identification number; entry and exit date and reason; beginning and ending test scores; number of sessions; and program codes. Data from these records were used to obtain program codes (*discontinued, program*, and *other students).*

There was a discrepancy between the number of students in the Austin Reading Recovery Site Report and the ROSS forms which were completed by Reading Recovery teachers for the Chapter 1 evaluation staff. (A cause for the discrepancy may be that Chapter 1 Reading Recovery teachers submitted ROSS forms at

the end of each six weeks that recorded contact from the time they began working with a child--called "roaming around the known"-- while the actual sessions did not begin until after this "roaming" period of 10 observations. Some students may not have continued with the program after the observation period for a variety of reasons.) A list was compiled that included all students who were reported to be served by Reading Recovery on either the ROSS forms or the data file used by the teacher leaders. A total of 268 Chapter 1 and Chapter 2 students were identified as Reading Recovery students.

Methodology

Descriptive rather than inferential statistical analyses were employed in the present study. The samples from the various populations were not randomly selected or randomly assigned and therefore, violated several assumptions necessary for valid interpretation of the results of data analyses using inferential statistics. Thus the results described in the present study refer only to students involved in the present study and cannot be generalized to other students because the differences described have not been tested for statistical significance in the populations.

The results of this evaluation have been presented to the AISD Reading Recovery teacher leaders and their responses are included at the end of this report in the Appendix.

To evaluate the achievement of the Reading Recovery students, it was decided that only the students with a valid pre- and posttest would be studied. The fall pretest was the Metropolitan Readiness Test (MRT) and the spring posttest was the Iowa Test of Basic Skills (ITBS). Although these tests do not form an ideal pre- and posttest comparison, they do give an indication of the standing of the Reading Recovery students relative to a national sample at the beginning and the end of the school year. The 50th percentile is the average score for both the MRT and ITBS.

Since percentile rank scores are not on an interval scale, students' scores were converted to normal curve equivalents (NCEs) for a more appropriate pre- and posttest comparison. The NCE relates a student's percentile rank to the normal (bell-shaped) curve. The national mean NCE is 50 with a gain of 2.0 NCE points considered to be the average expected gain for a school year.

Another criterion for the Reading Recovery group was that the pretest score (MRT) be at or below the 30th percentile. The number of Reading Recovery students who matched these criteria was 135. These students compose the group of students that were used to evaluate the Reading Recovery program in AISD.

Spanish Reading Recovery students were excluded from the group of 135 English Reading Recovery students, but compose a subgroup of 23 students who were instructed with *Descubriendo la Lectura*. The achievement gains made by Spanish Reading Recovery students were evaluated using the MRT (given in Spanish) and the *La Prueba*.

A control group was established for comparing the gains made by Reading Recovery students. The control group was composed of Chapter 1-eligible students who attended one of the 12 Chapter 1 schools that did not offer Reading Recovery. These students did not receive Reading Recovery or another form of supplemental reading instruction. This group includes 285 students with valid pre- and posttests who matched these criteria. The demographics of these two groups compare as follows on Table 1.

Table 1
Demographics of Reading Recovery Students and Control Group

	Reading Recovery	*Control Group*
Gender		
Male	59%	49%
Female	41%	51%
Ethnicity		
African American	32%	61%
Hispanic	59%	36%
Anglo/Other	10%	2%
Special Education	13%	4%
Low Income	93%	92%
LEP	8%	1%

FINDINGS AND IMPLICATIONS

The evaluation questions addressed in this study of Reading Recovery in AISD are presented along with the findings and corresponding implications.

Evaluation Question 1) ***How many grade 1 Reading Recovery students were discontinued, program, and other students? What were the reasons for exiting the program?***

Reading Recovery served 268 English and Spanish-speaking students in AISD in 1993-94. This is an implementation rate of 13% of the 2,061 grade 1 students at Reading Recovery schools.

Of this group, 154 students served by Reading Recovery were *program students* (which includes both *discontinued* and *program-not discontinued students).* **Eighty-three of the 154 *program* students were *discontinued.* The number discontinued represents 31% of all Reading Recovery students and 54% of all *program students*.** Table 2 shows a breakdown of the number and percent of Reading Recovery *program, discontinued, and other* students by number of lessons.

Table 2
Number and Percent of Reading Recovery Program
and Discontinued Students in 1993-94

Program Code	*# of Students Served*	*% of Students Served*	*≥ 60 Lessons*	*< 60 lessons*
Program students	154 of 268	57%	119 (77%)	35 (23%)
Discontinued students	83 of 268	31%	48 (58%)	35 (42%)
Program, Not Discontinued	71 of 268	26%	71 (100%)	0 (0%)
Other students	114 of 268	43%	0 (0%)	114 (100%)

Forty-three percent (114) of all Reading Recovery students received fewer than 60 lessons and were not discontinued. These students exited the Reading Recovery program for a variety of reasons (withdrawal to another school, withdrawal to special education, and end of the school year) and are classified as *other* students in this report. The following list shows the number and percentage of all *Reading Recovery students* and Reading Recovery *program students* who exited the program and the reasons for exiting:

Of the 268 students who entered the Reading Recovery program:

- 25 students (9%) withdrew to special education;
- 52 students (19%) withdrew for other reasons;
- 83 students (31%) were discontinued;
- 88 students (33%) were in the program at the end of the year; and
- 20 students (8%) were of unknown status.

Of the 154 *program students*:

- 3 students (2%) withdrew to special education;
- 11 students (7%) withdrew for other reasons;
- 83 students (54%) were discontinued;
- 52 students (34%) were in the program at the end of the school year; and
- 5 students (3%) were of unknown status.

Implications

Thirty-one percent of all students served by Reading Recovery were discontinued. The percentage of *discontinued* students in the present study is lower than the percentages found in the literature. Several explanations for this finding are possible. Reading Recovery is in its infancy in AISD; the 1993-94 school year was the second year students were served by the program. Findings from other studies indicate that teacher training and experience are important to student success in the Reading Recovery program. It is possible that the rate of discontinuation will rise as teachers receive more training and become more experienced.

Also, the demographics of the population of Reading Recovery students in AISD may have had some effect on discontinuation rates. The demographic profile of students served by Reading Recovery in AISD has been found to be correlated with poorer outcomes, including lower discontinuation rates. The Reading Recovery schools have high mobility rates that make it difficult to retain all children in the program until they can be discontinued.

Evaluation Question 2) What were the average number of sessions for discontinued, program, and other Reading Recovery students?

The Reading Recovery program states that students meet for an average of 12- 20 weeks (60-100 sessions). **The average number of sessions for both *discontinued* (63.4 sessions) and *program, not discontinued* (93.0 sessions) students in AISD in 1993-94 was within the stated average range for the Reading Recovery program**. *Other* students, who received less than 60 sessions and did not discontinue, received an average of 35.5 sessions. The number of average sessions includes "roaming around the known."

Implications

Discontinued students on the average had a fewer number of sessions than did *program-not discontinued* students. Two explanations are plausible in the present study. One explanation is that *discontinued*

students shared certain characteristics that *program* students lacked that made the Reading Recovery intervention more effective for the discontinued students (e.g., family stability, reading readiness, etc.).

Another explanation is that the *discontinued* students simply started out the Reading Recovery program at a higher reading level than did the *program* students. This issue is further addressed by the comparison of the Reading Recovery group with a control group; these findings will be discussed in conjunction with the appropriate research question.

Even though the students in the *other* category did not get the full benefit of the Reading Recovery program, the group still averaged 35.5 sessions (seven weeks or 4,000 hours of teacher time). While this group of students exited the program for reasons outside the teachers' control, the number of hours spent with these students prohibited other students from participating in the Reading Recovery program.

Evaluation Question 3) Did Reading Recovery affect the promotion rate for those students who were served?

The promotion rate for *discontinued* students (95.2%) was higher than that of the control group (82%) in 1993-94. The promotion rate of all *program students* (70.4%) was lower than that of the control group (82. Table 3 shows the promotion, placement, and retention rate for the *discontinued, program* , and *other* Reading Recovery students with the control group in 1993-94.

Table 3
Promotion and Retention of Reading Recovery Students
and the Control Group, 1993-94

Program Code	*Promoted*	*Placed*	*Retained*
All Discontinued Students (N=83)	95.2% N=79	4.8% N=4	0% N=0
All Program Students (N=154)	70.4% N=50	25.4% N=18	4.2% N=3
Other (Less Than 60 Lessons, Not Discontinued) (N=114)	70.2% N=80	26.3% N=30	3.5% N=4
Total Control Group (N= 285)	82% N=233	17.5% N=50	0.7% N=2

Implications

The promotion rate was higher for the *discontinued* students than the control group. The retention rate was 0% for the *discontinued* Reading Recovery students which would indicate that the program was effective for these students. Promotion, placement in grade, and retention are campus decisions which makes it difficult to determine the program effectiveness from the data available.

Evaluation Question 4) ***What gains were made by Reading Recovery students from pretest (MRT) to posttest (ITBS)? How did the achievement gains compare to the control group?***

The Reading Recovery *discontinued* students began the program with a lower mean NCE on the MRT (22.9) than the control group (23.4), but scored a higher NCE on the spring ITBS (39.2) than the control group (36.7). The grade equivalent for both groups was 1.6. The MRT and ITBS scores for Reading Recovery students and the control group are shown in Table 4.

Table 4
1993-94 MRT and ITBS Median Percentiles and NCEs
For Chapter 1 Reading Recovery Students and The Control Group

Program	*Metropolitan Readiness Test*		*ITBS Reading Comprehension*		
	Mean NCE	Median Percentile	Mean NCE	Median Percentile	GE
Discontinued Students	22.9	9.5	39.2	30.5	1.6
Program, Not Discontinued	16.2	6.0	24.1	11.0	1.3
Other (Less than 60 Lessons)	17.4	8.0	24.2	11.0	1.2
Control Group	23.4	11.0	36.7	29.0	1.6

A review of the fall 1994 ITBS reading total scores showed that the *discontinued* Reading Recovery students continued to outscore the control group in the 1994-95 school year. Both groups had lower NCEs on the fall 1994 ITBS than the spring 1994 ITBS. The *discontinued students* showed a mean NCE score of 36.9, while the control group had a mean NCE score of 34.8.

Implications

The Reading Recovery students showed slightly higher scores on the spring 1994 ITBS than the control group lending support to the belief that the program is an effective intervention tool. These were the students who were having the most difficulty learning to read in the fall, and they were able to surpass the control group on the spring 1994 ITBS, and continue to score above the control group on the fall 1994 ITBS. Although the differences in scores are slight, these 83 discontinued students were able to achieve scores above the average of the control group. Without this early reading intervention, the *discontinued* students would probably not do as well as the control group.

Evaluation Question 5) ***How many students were served in 1992-93? How do standardized test scores from 1992-93 Reading Recovery students compare with 1993-94 Reading Recovery students?***

Five times as many low-achieving first graders received Reading Recovery instruction in 1993-94 (n=268) than in 1992-93 (n=55). Only 10 students were discontinued from the program in 1992-93 compared with 83 in 1993-94. **Gains are evident for both the 1992-93 and 1993-94 Reading Recovery *discontinued* students from the fall (MRT) to the spring (ITBS).** The ITBS reading comprehension median percentile for *discontinued* student in 1992-93 (37.0) was higher than spring 1993-94 median percentile (30.5). The *discontinued* students showed substantial gains from pretest to posttest in both years. The grade equivalent for both groups was 1.6 which is the expected gain for AISD Chapter 1 students. Table 5 compares the MRT median percentiles and ITBS median percentiles for both 1992-93 and 1993-94 for all students served by Reading Recovery.

Table 5
1992-93 and 1993-94 MRT and ITBS Reading Comprehension Median Percentile
All Students Served By Reading Recovery

Program	*Metropolitan Readiness Test (Fall)*		*ITBS Reading Comprehension (Spring)*		*ITBS Grade Equivalency (Spring)*	
	92-93* Median Percentile	93-94** Median Percentile	92-93 Median Percentile	93-94 Median Percentile	92-93 Grade Equivalent	93-94 Grade Equivalent
Discontinued Students	8.0	9.5	37.0	30.5	1.6	1.6
Program, Not Discontinued	4.0	6.0	24.0	11.0	1.3	1.3
Other (Less than 60 Sessions)	11.0	8.0	19.0	11.0	1.3	1.2

* n= 30 in 1992-93
** n=135 in 1993-94

Implications

The Reading Recovery *discontinued* students have shown gains for the two years of the program. The gains were greater for the first year students than the second year students.

Evaluation Question 6) ***Are higher-achieving students positively affected by Reading Recovery?***

Reading Recovery was meant to serve only the lowest 15-20% of grade 1 students on the campus. In some cases, the students selected to be served with Reading Recovery in 1993-94 scored above the 30% (Chapter 1 eligibility criterion) on the MRT in fall 1993. In 1993-94, 17 students received Reading Recovery who would not be eligible according to Chapter 1 eligibility guidelines. Of these 17 students, nine were *discontinued* students; 2 were *program- not discontinued* students; and six were *other* students. **For the**

students who scored above the 30th percentile on the MRT, both the mean NCE and the median percentile dropped from fall 1993 MRT to spring 1994 ITBS.

These results indicate that scores for grade 1 Reading Recovery students who scored above the 30th percentile on the MRT are not sustained throughout the school year when served by Reading Recovery instead of the regular classroom instruction. Table 6 shows the comparison of students who scored above 30% and at or below 30% on the MRT, and the results of the ITBS test from spring 1994.

Table 6
MRT and ITBS for All Program and Discontinued Students and Chapter 1 Eligible Comparison

All Program and Discontinued students	*Metropolitan Readiness Test*		*ITBS Reading Comprehension*		
	Mean NCE	Median Percentile	Mean NCE	Median Percentile	GE
Chap. 1 Students ≤ 30% (N=82)	19.8	8.0	32.2	23.0	1.4
Students > 30% (N=17)	47.6	44.0	40.2	38.0	1.6
Control Group(N=285)	23.4	11.0	36.7	29.0	1.6

Implications

The students scoring above the 30th percentile on the MRT may not be appropriate candidates for Reading Recovery. The Reading Recovery program was developed for students in the lower 15-20% of their class. The *Reading Recovery students* in the present study who scored above the 30th percentile on the MRT did not show a gain from pretest to posttest.

Evaluation Question 7) What gains were made by the Spanish Descubriendo la Lectura students?

Spanish-speaking students who were instructed with the *Descubriendo la Lectura* made the greatest gains of any of the students who were instructed with Reading Recovery. Of the 38 Spanish-speaking students who received Reading Recovery instruction, 17 had valid prestest (Spanish MRT) and postest (*La Prueba*) scores. The remaining *Descubriendo la Lectura* students were excluded from analyses of achievement data because they lacked valid pre- and postest scores, or they took the Engish version of the achievement tests. The *discontinued* Spanish students scored a median percentile of 60.5 as a group on the *La Prueba* end of year test which places them above the national average of 50%. The *program* students were slightly below the national average with a 46.0 percentile. Table 7 shows the comparison for Spanish Reading Recovery students on the MRT and *La Prueba*.

Table 7
MRT and *La Prueba* for
Spanish *Descubriendo la Lectura* 1993-94

	Number Served	*Mean MRT NCE*	*Median MRT %*	*Mean La Prueba NCE*	*Median La Prueba Reading %*
Spanish Discontinued	N=8	28.3	17.5	60.3	60.5
Spanish Program	N=9	13.5	3.0	47.9	46.0

Implications

Descubriendo la Lectura appears quite effective with the limited-English-proficient (LEP) students although there were too few served to be termed statistically significant.

Evaluation Question 8) ***How did grade 2 students who received Reading Recovery in grade 1 rank in their grade 2 classrooms?***

A rank-order form was used to observe how grade 2 students who were Reading Recovery *program* or *discontinued* students in 1992-93 ranked in reading in the year following Reading Recovery instruction. Second-grade teachers who had former Reading Recovery students in their classes were asked to rank those students reading performance with their present class.

Program-not discontinued **students on the average placed in the 25th percentile in reading in their second grade classes.** ***Discontinued*** **students placed in the 53rd percentile in their second grade classroom in reading**. These *discontinued* Reading Recovery students met the goal of the program which is for students to develop effective reading and writing strategies to enable students to work within the average reading level of their classroom.

Implications

Discontinued students maintained gains in the second grade; they were placed at the 53rd percentile in their second grade reading by their classroom teachers.

Evaluation Question 9) ***How many students were subsequently served by special education or supplementary reading programs after receiving Reading Recovery instruction?***

Sixteen (29 %) of the students served by Reading Recovery in 1992-93 were served by the special education program in 1993-94. Included in this total are students who were exited to special education because of the lack of progress shown using the Reading Recovery strategies.

During the 1993-94 school year, 25 (9%) of the students were exited to special education. **None of the 1992-93 *Reading Recovery students* were served by literacy groups or other supplemental Chapter 1 programs in 1993-94.**

Implications

Students who received Reading Recovery in 1992-93 did not require Chapter 1 services in 1993-94. Many students were exited to the special education program in 1993-94 after an attempt at Reading Recovery. It appears that Reading Recovery does reduce some need for Chapter 1 service, but if students are in need of special education services, Reading Recovery does not help.

Evaluation Question 10) ***What is the cost of the Reading Recovery program per student served for 1993-94?***

The cost for implementation of Reading Recovery has been provided by Chapter 1 and Chapter 2. The amount of funds from each source in 1993-94 was:

- Chapter 1 - $847,062
- Chapter 2 - $126,545
- Total $973,607

The total cost of $973, 607 for implementing Reading Recovery in 1993-94 includes teacher leaders' and teachers' salaries and benefits; travel and registration for conferences; books and supplies; and contracted services. **The total expenditure for 1993-94 including startup costs ($973,607) divided by the number of students served by Reading Recovery (n=268) gives an average cost per student at $3,633 in addition to the District cost per student.**

The start-up costs of Reading Recovery (i.e. Teacher Leader training, books, and the behind-the-glass training facility) will be one-time expenses. The cost per student should decrease over time.

Implications

The initial start-up cost for Reading Recovery is very high. As the program grows, the cost will likely increase, but more students would be served. If the claim that Reading Recovery reduces future need for intervention is true, then the cost to the District could be reduced over time. However, this is unclear from the first two year's data.

Evaluation Question 11) ***Did the teachers and teacher leaders involved in this first full year of implementation believe that Reading Recovery was an effective early intervention program for first graders?***

Reading Recovery teachers were surveyed in spring 1994 to find their responses to the program at their school. Teacher Leaders were interviewed for their input. **The comments made by teachers and teacher leaders about Reading Recovery were very positive.** The teacher leaders acknowledged that there were both strengths of the program and areas in need of improvement. The following comments were made by the teacher leaders:

Strengths of the Program:

- Teachers received thorough ongoing training, lots of campus contact, local supervision, and strong support.
- Teachers were supported with books and materials.
- There was continuing education with a feedback loop for teachers in training.
- There were a lot of committed teachers willing to go the extra mile who cooperated well with each other.
- Teachers worked well on the campuses and made an impact on the students there.

Areas of Improvement:

- On some campuses, communication with other teachers and the principal needs to improve. Reading Recovery teachers need to help others at their schools better understand the program.
- There should be better coordination with the main curriculum.
- Decisions about Reading Recovery children who are not making strong, fast gains in reading are difficult to make.
- The relationship between year-round school and Reading Recovery needs to be explored. Reading Recovery may not be effective for the year-round school because of the intersessions--too much gap in instruction.
- It is important to develop a committee on each campus to make decisions about keeping or dropping students. This could include the principal, Reading Recovery teacher, the first grade team leader, and teacher leader.

A teacher leader stated that, *"Reading Recovery is extremely labor-intensive for teacher leaders and teachers. Teachers are deeply involved with the children. For some teachers it takes more than a year to perfect the training."*

Reading Recovery teachers were asked to respond to 15 questions about the program in the spring 1994 ORE Coordinated Survey. Of the 25 teachers who responded to survey items, 20 (80%) were first year Reading Recovery teachers and 5 (20%) were second year teachers. All (25) of the teachers strongly agreed or agreed with the statement, "I believe that Reading Recovery at my school is an effective early intervention program for first graders." Ninety-six percent of the teachers agreed or strongly agreed that all first grade teachers should be trained in Reading Recovery strategies.

Implications

The statements of the teachers and leaders involved with Reading Recovery indicate that they overwhelmingly believe that the program is an effective early intervention program for first graders. There are some problems that exist with the coordination and implementation at the campus level. Many teachers stated that the program would be more effective if other grade-level teachers were trained in the reading strategies.

SUMMARY

The Reading Recovery program serves grade 1 students who are having the most difficulty learning to read. AISD Reading Recovery students have shown slight gains above the control group during the 1993-94 school year. Without this early reading intervention, it is not clear what would happen to these students--if they would be sent to special education classes without trying something extra; if they would be retained due to their inability to read; or, if they would, eventually, catch up with the rest of their classmates.

Reading Recovery is designed to help students get a good start in school which could influence them to stay in school. The additional cost per student is high, but could save money over time if the program can reduce the need for future compensatory education. It is important to select teachers best suited to be trained for the program, and to retain the experienced teachers in the program.

As the Reading Recovery program grows in AISD, it is important to continue to study the achievement results, as well as the cost necessary to maintain the program. As more teachers learn the Reading Recovery strategies and use them in the classroom setting, the program should have a greater effect on student achievement.

RECOMMENDATIONS

1) A comprehensive process for selecting students to be served by Reading Recovery would help the program serve students in the most need. Standardized tests used in addition to the Reading Recovery assessment will validate the teacher's judgment. Eligibility and exit criteria should be more standardized to ensure consistency in the Reading Recovery program.

2) The AISD Reading Recovery program should strive to increase the number of students who successfully complete (*discontinue*) the program to improve cost-effectiveness.

3) The implementation rate for the AISD Reading Recovery program should increase to serve more of the students who are lowest in literacy.

4) Increased collaboration of Reading Recovery teachers and teach leaders with classroom teachers, special education teachers, and the principal will contribute to the improved student outcomes.

5) The continuation of experienced Reading Recovery teachers is important to the success of the program. Program effectiveness should improve as the number of experienced teachers increases.

6) The effects of the Reading Recovery program in AISD should continue to be investigated with further cooperative evaluation between the local Reading Recovery staff and district evaluation personnel.

Bibliography

Catterson, S., Curry, J., Paredes, T., & Washington, W. (1994). Chapter 1/Chapter 1 Migrant evaluation findings, 1993-94 (ORE Pub. No. 93.03) Austin, TX: Austin Independent School District, Office of Research and Evaluation.

Clay, M. M. (1988, August). Studying developmental change with a successful intervention. Paper presented at the fifth Australian Developmental Conference in affiliation with the International Society for the Study of Behavioral Development, Sydney, Australia.

Curtin, J. (1993). The effectiveness of the Reading Recovery Program. Chicago, IL. (ERIC Document Reproduction Service No. 363-863)

Donley, J.: and others. (1993, April). A study of the long-term effectiveness of the Reading Recovery program. Paper presented at the Annual Meeting of the American Educational Research Association, Atlanta, GA.

Fincher, G. (1989). Reading Recovery and Chapter 1: A three year comparative study (1985-88). Unpublished report.

Pinnell, G.S., Lyons, C.A., DeFord, D.E., Bryk, A.S., & Seltzer, M. (1994). Comparing instructional models for the literacy education of high-risk first graders. Reading Research Quarterly, 29 (1), 9-39.

Pollock, J.S. (1993). Reading Recovery Program 1991-92. Elementary and Secondary Education Act--Chapter 1 Final Evaluation Report. Columbus, OH: Columbus Public Schools Department of Program Evaluation.

Reading Recovery 1984-1989, No. 4. (Report No. TAC-B-115). Columbus: Ohio State University Columbus College of Education.

Steinberg, L., & Stafford, S. (1994). Reading Recovery site report year 1: 1993-94. Austin, TX: Austin Independent School District.

Austin Independent School District

Department of Performance Audit and Evaluation

Acting Director
Rick Bartel

Authors
Dr. Holly Williams, Evaluator
Janice Curry, Evaluation Associate
Julia Griffith, Evaluation Associate

Board of Trustees
Kathy Rider, President
Jerry Carlson, Vice President
Melissa Knippa, Secretary
Tom Agnor
Diana Castañeda
Loretta Edelen
Liz Hartman
Geoff Rips
Ted Whatley

Superintendent of Schools
Dr. James H. Fox

Publication Number 94.06
May 1995

BEST COPY AVAILABLE